REMARKS

In the Office Action mailed February 13, 2003, claims 1-24 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U.S. Patent No. 6,178,416 to Thompson et al. ("Thompson"). Applicants respectfully traverse the rejection of record, and further submit that claims 1-24 are in condition for allowance.

Applicants' invention is directed to addressing the difficult problem of searching a database of images. On the other hand, Thompson is directed to a system for searching through a library of textual information. From this broad perspective, Applicants' invention and Thompson are easily distinguished.

More specifically, independent claim 1 recites a computerized method for generating a visual template for a concept, comprising the steps of, *inter alia*,

> obtaining at least one initial query for the concept;
> generating at least one additional query related to the initial query; and
> in case of appropriateness, including the additional query in the visual template for the concept.

Accordingly, independent claim 1 is directed to a method for <u>generating a visual template</u> for a concept. Claim 13 has many system limitations that correspond to the limitations of claim 1 expressed above.

Initially, Applicants note that Thompson is unrelated to the visual templates called for in claims 1-24. Thompson describes a library of query templates and a dictionary that relates keywords to more abstract concepts, wherein each template contains one or more types of variables. The querying described in Thompson is not for visual templates and queries as recited in claims 1-24. Thompson, however, relies on a "keyword dictionary," and does not disclose or even suggest the use of <u>visual</u> templates which are defined as each representing an idea in the form of a sketch or an animated sketch. (Specification, p.2, lines 35-36). In fact, in the "Background of the Invention" portion of the present application, the inadequacies of text or keyword data search engines as applied to video and images is discussed. (Specification, p. 1). The present invention provides techniques which are directed at overcoming the shortcomings of precisely this type of prior art. For

example, the visual templates of the present invention may be generated based on a user sketch or picture example. *(See, e.g.,* Specification, p.1, lines 30-34).

Moreover, Thompson fails to disclose or suggest at least several limitations of independent claim 1. The Examiner asserts that Thompson discloses the limitations of claim 1 recited in part above. For example, the Examiner asserts that Thompson teaches a method for generating a visual template for a concept, at col. 5, lines 30-33. (Office Action, p. 2). However, this cited portion of Thompson merely describes <u>matching</u> of concepts with templates. Nothing in this cited portion describes <u>generation</u> of <u>visual</u> templates, as recited in claim 1. Furthermore, as discussed above, the templates and queries of Thompson are related to text or keywords only.

Additionally, the Examiner asserts that Thompson teaches a step of obtaining at least one initial query for the concept. (Thompson, col. 5, lines 44-46). However, as discussed above, the visual template and query requirements called for in claim 1 are not disclosed or suggested by the cited portions of Thompson.

Moreover, the Examiner admits on p. 3 of the Office Action that "Thompson does not explicitly indicate generating at least one additional query related to the initial query." The Examiner asserts that this step is obvious in view of Thompson. However, the portion of Thompson cited in support of this assertion describes that each template contains one or more "typed variables." (Thompson, col. 2, line 30). The query is then generated by entering into the system one or more keywords. (Thompson, col. 2, line 32-33). These portions of Thompson cited by the Examiner actually highlight the distinguishing characteristics between the description of Thompson and the invention recited in the claims of the present invention.

Accordingly, for at least these reasons, Thompson cannot render claim 1 unpatentable, since it fails to disclose or even remotely suggest the features of the claim recited above. Likewise, independent claim 13 has apparatus limitations that correspond to the method limitations of claim 1 discussed above. For at least the reasons discussed above, independent claim 13 is also not rendered unpatentable by Thompson.

Additionally, dependent claims 2-6 and 14-18 contain all of the limitations of claims 1 and 13, respectively. Accordingly, these claims should be allowed over Thompson for at least this reason.

Moreover, regarding the rejection of claims 2 and 14, Thompson fails to disclose or suggest representing each query with an icon/example image. The Examiner cites a portion of Thompson and asserts that this feature is disclosed. However, the cited portion instead defines a "keyword" and a "concept" in the context of the techniques described in Thompson, and is wholly unrelated to the representation of a query using an icon or image. Accordingly, for at least this additional reason, Applicants respectfully submit that claims 2 and 14 are each allowable over Thompson.

Regarding the rejections of claims 3 and 15, the Examiner asserts that the cited portion of Thompson discloses obtaining a query via sketchpad as recited in these claims. However, the cited portion of Thompson for this rejection relates to a screen displayed to a user for selecting a textual concept by choosing a "select" key. Thompson does not disclose or even remotely suggest obtaining a query from a user via a sketchpad. Accordingly, for at least this additional reason, claims 3 and 15 are each allowable over Thompson.

Regarding the rejections of claims 5 and 17, Thompson also fails to disclose or suggest the claimed method wherein generating the additional icon comprises forming a join of plausible feature values. In fact, there is no discussion at all anywhere in Thompson regarding icons or images. The portion of Thompson cited by the Examiner in support of his rejection of these claims actually describes use of keywords, or series' of characters.. (Thompson, col. 3, lines 34-42). As this is wholly unrelated to the icons and images of the present invention, Thompson cannot possibly render claims 5 and 17 unpatentable. Accordingly, for at least this additional reason, claims 5 and 17 are each allowable over Thompson.

Accordingly, claims 1-6 and 13-18 are each in condition for allowance.

Regarding the rejection of independent claims 7 and 19, these claims recite techniques for querying a video database for a concept using a subset of a natural language in conjunction with semantic visual templates. The method of claim 7

comprises the limitations of, *inter alia*,

> obtaining a textual query,
> parsing the query to generate visual attributes, and
> using the visual attributes for forming a visual query.

The system of claim 19 comprises apparatus limitations corresponding to the method limitations of claim 7.

Thompson fails to disclose or even remotely suggest the recited limitations. As discussed above, Thompson is directed to "keyword" querying, and fails to describe even generally the visual queries recited in the claims of the present application.

Regarding independent claims 7 and 19 specifically, the Examiner asserts that the cited portion of Thompson discloses using visual attributes to forming a visual query. (Office Action, p. 5, item 6(c)). However, the portion of Thompson cited as disclosing this limitation has absolutely no relation to a <u>visual</u> query as recited in the claims of the present application. (Thompson, col. 4, lines 57-59, "This query could be sent to a database with a relation named 'DrugInformation' that has at least the three attributes 'drug', 'symptom', and 'effectiveness.'"). This text searching of Thompson does not even remotely suggest the claimed limitations of parsing a textual query to generate <u>visual attributes</u> and using the <u>visual attributes</u> for forming a <u>visual query</u>. Accordingly, for at least these reasons, claims 7 and 19 cannot be rendered unpatentable by Thompson.

Additionally, because dependent claims 8-12 and 20-24 also contain these limitations, these claims are also each further allowable over Thompson.

Moreover, regarding the rejections of claims 12 and 24, Thompson also fails to disclose or suggest the claimed <u>semantic visual templates</u> being a <u>visual</u> embodiment of the query. As discussed at length hereinabove, Thompson does not disclose or even remotely suggest this requirement. The portion of Thompson which is cited by the Examiner to support this rejection describes instantiating query templates with keywords or concepts. (Thompson, col. 8, lines 52-54). Again, there is no disclosure or even suggestion of the important <u>visual templates</u> (defined as each representing an idea in the form of a sketch or animated sketch) of the claimed invention. Accordingly, for at least this additional reason, claims 12 and 24 are each further allowable over Thompson.

CONCLUSION

In view of the foregoing remarks, favorable reconsideration of the application and allowance of claims 1-24 are respectfully solicited.

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